Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	CC Docket No. 94-102
Revision of the Commission's rules	)	
To ensure compatibility with	)	RM-8143
enhanced 911 emergency calling systems	)	

COMMENTS OF SPRINGWICH CELLULAR LIMITED PARTNERSHIP

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SUMMARY

Springwich endorses the FCC's commitment to ensuring that all wireless service subscribers have prompt and efficient access to emergency 911 services. As the Band B licensed cellular carrier in Connecticut and portions of Massachusetts, Springwich has provided access to 911 emergency services since it introduced cellular service in 1985. Today, Springwich processes over 120,000 calls to 911 annually free of charge to both in home territory users and cellular roamers.

As an experienced licensed wireless provider, Springwich believes that the rules adopted by the Commission will best serve the public interest if they are tailored to recognize the difference between emergency services provided by wireline and wireless services and the difference in implementing the rules faced by existing and future providers of wireless services.

Specifically, Springwich recommends that:

(1) the standard of absolute comparability between 911 services available to wireline and wireless subscribers be refined to address the unique attributes of the wireless environment and to limit the compatibility requirement to those features most closely resembling traditional 911 services;

(2) wireless providers should be given the option to restrict the offering of 911 services to mobile radio units that are stolen or are employed in fraudulent use;

(3) the time frames for implementing the three phases of enhanced Automatic Location Information ("ALI") be extended for existing wireless service providers, including cellular providers, to accommodate the need for modifications to existing networks and to minimize service disruption to existing subscribers;

(4) a waiver process be adopted to provide flexibility to accommodate delays in technological developments and the differing capabilities of public switched networks that may

affect the ability of wireless providers to meet the requirements adopted by the FCC; and

(5) existing mobile units be grandfathered from requirements adopted by the FCC that would necessitate a mass recall and modification of existing mobile units.

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Springwich Cellular Limited Partnership ("Springwich"), by its undersigned counsel, hereby submits its comments in response to the Commission's Notice of Proposed Rulemaking ("Notice") in the above-captioned proceeding.[1/] Springwich is the licensed wholesale cellular carrier providing cellular mobile telephone service to resellers on the "Band B" cellular frequencies throughout the State of Connecticut and portions of Massachusetts.[2/]

1/ *Notice of Proposed Rulemaking*, CC Docket No. 94-102, RM-8143, FCC 94-237 (rel. Oct. 19, 1994). Springwich's comments are limited to the Commission's proposals for compatibility of wireless services with enhanced 911 and do not address the Commission's proposals for compatibility of PBX equipment with 911 systems.

2/ Many of the Commission's proposals will depend on the ability of mobile radio unit manufacturers and other cellular equipment manufacturers, such as cellular switch manufacturers, to modify their equipment to comply with the FCC's rules. Comments on the technical feasibility and cost of modifying this equipment is best left to the manufacturers. Accordingly, Springwich will review the comments filed by the manufacturers in this proceeding and, to the extent those comments raise issues of interest to Springwich, will respond in reply comments.

I. INTRODUCTION

A. Tailoring the Commission's Proposals to Fit Wireless Providers

As a licensed cellular carrier, Springwich shares the Commission's commitment to providing cellular subscribers with prompt and efficient access to emergency 911 services. Springwich agrees with the Commission's proposal that 911 service requirements be imposed on all providers of mobile radio services offering access to real-time voice services provided on the public switched network. Springwich has provided access to 911 emergency services since it introduced cellular service in 1985. Springwich processes over 120,000 calls to 911 annually free of charge to both in home territory users and cellular roamers. Springwich recommends, however, that the Commission's policies for ensuring the availability and compatibility of wireless services and enhanced 911 be tailored to recognize the specific differences between wireline and wireless services and between existing and future wireless service providers.

Specifically, Springwich recommends that:

(1) the standard of absolute comparability between 911 services available to wireline and wireless subscribers be refined to address the unique attributes of the wireless environment and to limit the compatibility requirement to those features most closely resembling traditional 911 services;

(2) wireless providers should be given the option to restrict the offering of 911 services to mobile radio units that are stolen or are employed in fraudulent use;

(3) the time frames for implementing the three phases of enhanced Automatic Location Information ("ALI") be extended for existing wireless service providers, including cellular providers, to accommodate the need for modifications to existing networks and to minimize service disruption to existing subscribers;

(4) a waiver process be adopted to provide flexibility to accommodate delays in technological developments and the differing capabilities of public switched networks that may affect the ability of wireless providers to meet the requirements adopted by the FCC; and

(5) existing mobile units be grandfathered from requirements adopted by the FCC that would necessitate a mass recall and modification of existing mobile units.

B. Springwich's Emergency 911 Services

Springwich's cellular network is engineered to provide the end users of cellular resellers on its network the ability to complete emergency calls by dialing the three digit "9-1-1" code. Springwich does not charge resellers for the completion of such emergency calls within an end user's home territory nor does Springwich charge end users roaming outside their home territories for 911 calls originated over the Springwich network. Springwich has offered its resellers the ability to provide 911 emergency calling to their end users since 1985.

Springwich also provides ALI to public safety answering points ("PSAP") in its service territories in Connecticut -- its

primary service area. Specifically, in Connecticut, Springwich's network interconnects with the local exchange network of its affiliate Southern New England Telephone Company ("SNET"). Springwich's interconnection arrangement with SNET permits Springwich to relay the location of the base station or cell site transmitting an emergency call initiated by a cellular end user to a PSAP. In Massachusetts, Springwich's interconnection arrangements with the local exchange carrier restrict it from providing the level of ALI it offers in Connecticut. Implementation of the first phase of ALI proposed by the Commission in Massachusetts would require the successful completion of negotiations between Springwich and the local exchange carrier and that carrier's cooperation.

II. A STANDARD OF ABSOLUTE COMPARABILITY BETWEEN THE 911 EMERGENCY SERVICES PROVIDED BY WIRELINE AND WIRELESS PROVIDERS IS OVERLY BROAD

Services provided by wireline and wireless networks differ in several significant respects and require that the Commission limit the compatibility requirements for wireless providers to those most closely resembling traditional 911 services, not those enhanced services offered by many wireline carriers. The differences between wireline and wireless providers make a standard of absolute comparability in 911 services available from wireless and wireline networks inappropriate. First, wireless services, unlike wireline services, are limited by capacity constraints dictated by the amount of spectrum allocated to each licensed provider. Unlike wireline carriers, wireless providers

cannot merely add capacity to carry additional traffic; spectrum is a finite resource. Spectrum capacity constraints must therefore be considered in developing mandatory policies for priority carriage of wireless calls. Furthermore, the policies adopted by the Commission in this proceeding must be carefully tailored to balance the need for efficient use of the spectrum and the provision of access to emergency 911 services.

Second, a key feature of wireless services is the ability of wireless providers to offer subscribers mobile and portable services untethered from the landline network. As recognized by the Commission, the mobility offered by wireless services makes precise identification of the location of a subscriber at any given time more challenging. Precise location identification in the wireless environment is likely to be dependent on the development of additional technologies and on the use of other services such as satellite positioning services or new digital capabilities. Accordingly, the rules adopted by the Commission in this proceeding must be sufficiently flexible to accommodate delays in the development of technologies and the deployment or limitations of other services.

Finally, wireless services are more susceptible to fraudulent use and theft than wireline services provided to a stationary handset. Wireless providers should not be forced to provide any service, emergency or non-emergency, to users of unauthorized or stolen mobile radio units or mobile units employed in fraudulent use. The Commission's proposed broad

mandate to permit any user to have access to reach emergency services from any service-initialized mobile radio handset in a home service area or a subscribed-to roamed service area by dialing only 911 does not provide wireless carriers the flexibility to restrict service to stolen mobile units or mobile units employed in fraudulent use.[3/] Indeed, the Commission's proposal not to require user validation appears to require a wireless provider to provide emergency services to stolen mobile units. Just as disconnection of service may be permissible for non-payment of wireline charges, wireless providers should have the option of discontinuing service, including emergency 911 services, to mobile units that are stolen or employed for fraudulent use.

III. LONGER PERIODS OF IMPLEMENTATION SHOULD BE PROVIDED TO EXISTING WIRELESS SERVICE PROVIDERS

Implementation of the proposed policies for wireless services present different logistical and service issues for existing and future providers of wireless services. The differences in implementation should be incorporated into the Commission's final rules by providing a more flexible time frame for compliance with the rules by existing wireless service providers. For example, standards for the assignment of call priority to 911 calls are currently being developed by industry groups that will determine what software modifications are required and whether those modifications must be made to the

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[3/] Notice at ¶ 41.

network or also to the mobile radio units to readily identify a 911 call and to place it at the beginning of the queue as proposed by the Commission. If the software modification is required only on the network side, Springwich anticipates that it would be able to implement such an upgrade within one year of adoption of the requirement by the FCC. If a software modification is required to individual mobile units, however, a recall of existing mobile units would be required and the time frame for full implementation of the call assignment priority feature realistically would exceed the one year implementation period proposed by the Commission. Accordingly, Springwich recommends that the Commission provide an extended time frame for implementation of the call assignment priority feature to existing mobile units. Alternatively, Springwich recommends that the Commission grandfather existing mobile units distributed prior to the Commission's adoption of the rule from the requirement.

New providers of wireless services will not confront similar difficulties. New providers are in a position to incorporate the priority call assignment feature into their network operations prior to network construction and mass distribution of mobile radio units. Accordingly, a year implementation schedule is appropriate for new wireless providers that are not faced with recalling mobile units or modifying existing network facilities.

Similarly, the schedule for implementation of the three phase time introduction of ALI proposed by the Commission in the

Notice is too accelerated for existing wireless service providers. As noted above, Springwich already meets the general phase one ALI requirements in Connecticut. In other markets, however, Springwich's and other cellular carriers' ability to provide even this first phase of ALI is controlled by the local exchange carrier's willingness to provide wireless providers the necessary capabilities.

In phase two of ALI implementation, the Commission proposes to require wireless providers to include an estimate of the location and distance of a mobile unit from a base station by measuring the receiving signal strength. In Springwich's experience information regarding the received signal strength or serving sector is not sufficient to provide precise location information in the common wireless multipath, fading environment. Before this phase can be implemented, therefore additional technologies that can offer this capability need to be developed and the process of incorporating these changes into existing mobile radio units and wireless networks needs to be fully explored. These developments are best explored and implemented through industry efforts and standards forums rather than stringent Commission time mandates.

Finally, in phase three of the implementation of ALI, the Commission proposes to require three dimensional location of wireless subscribers. As recognized by the Commission in the Notice, this phase may require the use of additional services, including satellite systems. In addition, the transition to this

stage will require the modification of mobile units. Mobile unit modification would require the recall and retrofitting of all distributed units to permit the mobile units to interface with the location service. For existing providers of wireless services, this will impose an additional cost and an inconvenience to subscribers. Accordingly, Springwich recommends that existing wireless providers that are subject to the Commission's requirement be provided a more extended time frame than the 5 years proposed by the Commission to assess the adequacy of ALI services provided in the first two phases of implementation and to determine if phase three is necessary. This more calculated approach will minimize the disruption in service to cellular end users while still ensuring access to emergency 911 services.

In addition, to accommodate unanticipated delays in technology development and in recognition of the interdependence between the wireline and wireless networks in providing 911 services, Springwich recommends that the Commission provide a process for wireless providers to seek waivers of the Commission's rules. As recognized by the Commission in the Notice, the precise emergency 911 service capabilities necessary may vary by jurisdiction and by geographic and population characteristics -- such as urban and rural locations.[4/] Accordingly, the Commission should adopt a limited waiver process for wireless providers to accommodate different local and

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[4/] Notice at ¶ 51.

technical obstacles that are beyond the wireless providers' control but may interfere with strict compliance with the rules adopted by the FCC.

Finally, Springwich recommends that the Commission grandfather mobile units distributed prior to the adoption of the Commission's rules from strict compliance with the Commission's rules. Springwich will work diligently with its resellers to encourage end users to have their mobile units retrofitted to incorporate the additional 911 service capabilities as they become available. Such encouragement and the willingness of service providers and manufacturers to modify end users' mobile units, however, may not be sufficient to achieve strict compatibility of all mobile units with the 911 services provided by wireless providers and required by the FCC. In addition, certain mobile units may not be capable of modification. In recognition of the unique difficulties that may be encountered in modifying existing mobile units, the FCC should grandfather existing mobile units from requirements adopted by the FCC that would necessitate a mass recall and modification of existing mobile units.

IV. RE-RING AND CALL BACK PROCEDURES WILL REQUIRE NETWORK MODIFICATIONS AND BILLING ADJUSTMENTS

The Commission's proposal to require re-ring and call back capability if an emergency call is disconnected would require switch modifications, billing systems enhancements and proper local exchange interconnection for existing wireless providers. These changes may be costly and could take more than the three

years proposed by the Commission for implementation. For example, in order to provide re-ring and call back service, wireless providers would be required to forward automatic number identification ("ANI") for subscribers in their home territory and to provide automatic call delivery for roamers. Many existing wireless providers, including Springwich, are not currently equipped to provide these services. Modifications to the switching software would be required to forward ANI as well as compatible local exchange interconnection.

The process for providing re-ring or call back to a subscriber roaming outside the subscriber's home territory is even more complex. Upon receipt of a call from an end user roaming outside the user's home territory, the PSAP would be required to make a call (presumably a toll call) to the roamer's home system. The home system would then deliver the call to the subscriber's visited system and confirm that the subscriber is authorized to roam on the visited system. Only on completion of these connections would the re-ring or call back be initiated. Alternatively, upon origination of a 911 call by an end user roaming in Springwich's network service territory, a temporary local directory number ("TLDN") could be assigned to that user. With appropriate switch modifications, the assignment of the TLDN would permit Springwich to convert the TLDN into the roamer's number and provide call back and re-ring services.

Billing enhancements also would be necessary for any re-ring or call back capabilities to ensure that end users are not

charged for such services. Cellular services today are billed to the cellular subscriber generally on airtime usage regardless of whether the call is initiated or received by the cellular user. Similarly, roamers are charged for the toll charges associated with calls forwarded from their home system and automatic call delivery. Accordingly, to provide call back and re-ring services for emergency 911 calls, billing systems would need to modified to verify the call as an emergency 911 call back or re-ring and to omit any charge to the end user for the call.

V. THE TIME FRAME FOR IMPLEMENTING COMMON CHANNELING SIGNALLING MUST BE FLEXIBLE TO PERMIT SWITCH MODIFICATIONS AND THE AVAILABILITY OF APPROPRIATE LEC INTERCONNECTION

The Commission's proposal to require common channel signalling ("CCS") within three years after adoption of its rules will depend on the developments of cellular switch providers and the provision of CCS interconnection by local exchange carriers. The timely development of switching capability and the provisioning of CCS are beyond the control of wireless providers and should not be tied to a specific time frame for implementation. Alternatively, if a specific time frame is adopted, then wireless providers should be permitted to obtain waivers or extensions of the time to accommodate equipment needs or interconnection limitations.

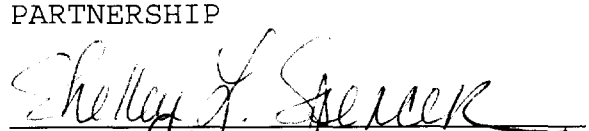
VI. CONCLUSION

Springwich commends the Commission for its recognition of the need for wireless service providers to provide end users access to emergency 911 services. In prescribing rules to

achieve this goal, however, the Commission must recognize the fundamental differences between the wireline and wireless environment and prescribe regulations tailored to wireless services. In addition, the Commission rules must recognize the different feasibility, cost and service disruption issues that the rules will impose on existing providers of wireless services and future providers of wireless services. Existing providers should be given a more flexible time frame for compliance with the rules to accommodate different technological and system and mobile unit changes. In addition, a waiver process should be adopted to permit limited extensions of the time frames and modes of compliance with the Commission's final rules. Existing mobile units should be grandfathered from requirements adopted by the FCC that would necessitate a mass recall and modification of existing mobile units.

Respectfully Submitted,

SPRINGWICH CELLULAR LIMITED PARTNERSHIP



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